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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,738	10/20/2000	Fumio Takahashi	Q61378	3763
23373	7590	12/12/2003	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037			MAKI, STEVEN D	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n No.

09/673,738

Applicant(s)

TAKAHASHI, FUMIO

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-22 is/are pending in the application.
- 4a) Of the above claim(s) 1 and 3-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-20 is/are rejected.
- 7) ☒ Claim(s) 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-6-03 has been entered.

2) Claim 11 is objected to because of the following informalities: on line 2 of claim 11, "both side" should be --both sides--. Appropriate correction is required.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Matsepuro / transversely extending edges

5) **Claims 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsepuro (WO 93/21028).**

Matsepuro discloses a tire having a tread comprising a row of blocks 14 which are "demarcated by circumferential grooves extending in a circumferential direction of the tire and grooves intersecting the circumferential grooves". See figure 13.

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Matsepuro teaches that the thrust surfaces of the blocks can be straight, concave or convex or a combination of these. See abstract. The tire has improved grip on soft ground. See abstract. Matsepuro illustrates a block having a "peripheral protuberant portion" at the leading and trailing edges thereof wherein "the height of the block gradually and continuously decreases from a top of the peripheral portion to the block end edge and from the top of the peripheral protuberant portion to a maximum depth portion in a central region of the block". See figure 6.

As to claim 8, the claimed peripheral protuberant portion reads on the peripheral protuberant portion shown by Matsepuro in figure 6. Since Matsepuro illustrates the tire having a casing in figure 1, one of ordinary skill in the art would have readily understood that Matsepuro's tire is a pneumatic tire.

As to claims 9 and 10, Matsepuro provides "peripheral protuberant portions at the ends of the block in the circumferential direction", or in other words, "transversely extending peripheral protuberant portions".

**6) Claims 8-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsepuro (WO 93/21028).**

Matsepuro, which is described above, is considered to anticipate claim 8. In any event: It would have been obvious to one of ordinary skill in the art to provide Matsepuro's tire as a pneumatic tire since Matsepuro shows providing the tire with a casing (figure 1) and a pneumatic tire having a casing is taken as a well known / conventional type of tire in the tire art. The limitation of each block being defined by circumferential grooves and other grooves and having the claimed peripheral

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protuberant portion would have been obvious since (a) Matsepuro shows blocks 14 which are "demarcated by circumferential grooves extending in a circumferential direction of the tire and grooves intersecting the circumferential grooves" (figure 13) and (b) Matsepuro illustrates a block having a "peripheral protuberant portion" at the leading and trailing edges thereof wherein "the height of the block gradually and continuously decreases from a top of the peripheral portion to the block end edge and from the top of the peripheral protuberant portion to a maximum depth portion in a central region of the block" (figure 6).

As to claims 12-19, the claimed dimensions would have been obvious and could have been determined without undue experimentation in view of (a) Matsepuro's teaching to shape the thrust surface 5 so as to improve grip on soft ground and (b) Matsepuro's teaching to provide the thrust surface with the shape shown in figure 6. In figure 6, each convex protuberant portion is illustrated as having a height less than length. Also, a relatively small height for each protuberant portion is indicated by Matsepuro's teaching that the figure 6 embodiment is an alternative to the figure 2 embodiment in which the block has a protuberant height of zero (i.e. has no protuberant portion).

German '427 / circumferentially extending edges

**7) Claims 8-9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over German '427 (DE 3709427) in view of Hasegawa et al (US 5435364).**

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German '427 discloses a tire having a tread including a circumferential groove 3 separating tread element 1 from tread element 2. German '427 discloses providing each tread element with narrow venting ribs 6. Each venting rib has a height of 0.3-0.5 mm. Each rib has a triangular cross section. The ribs are at the edges and arranged circumferentially and/or across the surface from the edges of the elements without those ribs. See abstract. Narrow ribs 6' are therefore optional. German '427 does not recite defining the blocks using circumferential grooves and transverse grooves. However, it would have been obvious to one of ordinary skill in the art to provide narrow ribs having a triangular cross section only at the circumferentially extending edges of blocks defined by circumferential grooves and transverse grooves since (1) German '427, directed to reducing noise of a tire tread, teaches forming circumferentially extending narrow ribs having a triangular cross section only at the circumferentially extending edges of tread elements as flash from tire mold vents so that the resulting tire is quiet and (2) Hasegawa, directed to improving wet grip performance without deteriorating low noise performance, shows that it is well known / conventional in the tire art to provide a tire tread with tread elements in the form blocks defined by circumferential grooves and transverse grooves.

As to claims 8, 9 and 11, the claimed peripheral protuberant portion reads on the ribs 6 of German '427. *Claim 8 reads on and fails to exclude the maximum depth being defined by a relatively large flat upper block surface area.*

As to claims 12-19, the claimed dimensions would have been obvious and could have been determined without undue experimentation in view of German '427's

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teaching to provide the narrow rib with a triangular cross section and a height of 0.3-0.5 mm.

Hamm / entire peripheral edge

8) **Claims 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamm (US 1210933) in view of Europe '269 (EP 240269).**

Hamm discloses a resilient tire for a motor vehicle (a pneumatic tire) having a tread comprising circumferential grooves and transverse grooves defining three rows of square studs (square tread elements / blocks). Two rows are illustrated in figure 1-3. Three rows are described at page 1 lines 43-53. Some of the studs (tread elements) are hollow so as to act as suction studs (suction tread elements). Hamm does not recite shaping the upper surface of the suction studs (suction tread elements) so as to have the claimed height. As to claims 8-11 and 20, it would have been obvious to one of ordinary skill in the art to shape the upper surface of the suction studs (suction blocks) of Hamm such that each suction stud has a concave center region surrounded by a sloping annular ring since Europe '269 suggests providing a tread element, which like that of Hamm functions to establish suction, with an upper surface comprising a concave center region surrounded by a sloping annular ring so that suction can be established on ice and snow covered roadway surfaces. *There is no difference between the claimed "peripheral protuberant portion" and the peripheral protuberant portion (defined by the concave center region and sloping annular ring) suggested by Europe '269. The claimed block reads on a block for establishing suction.* Hamm is used as the primary reference instead of Europe '269 since Hamm teaches using

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suction tread elements which are "demarcated by circumferential grooves extending in a circumferential direction of the tire and grooves intersecting the circumferential grooves".

As to claims 12-19, the claimed dimensions would have been obvious and could have been determined without undue experimentation in view of Europe '269's teaching to shape the upper surface of a tread element so as to have a concave center region surrounded by an annular sloped ring for establishing suction on snow and ice.

#### **Allowable Subject Matter**

**9) Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

The prior art of record, including Miyazaki, fails to disclose, teach or suggest modifying Matsepuro, German '427 or Hamm such that the resulting tire has the specific peripheral protuberant portion as set forth in claim 8 and the specific chamfer as set forth in claim 21.

#### **Remarks**

10) The prior art rejection using Marriot in the office action dated 2-5-03 is withdrawn in view of the amendment filed 8-5-03 and entered per the RCE filed 10-6-03.

The prior art rejection using Japan '810 in the office action dated 2-5-03 is withdrawn in view of the amendment filed 8-5-03 and entered per the RCE filed 10-6-03.

Upon careful reconsideration, the prior art rejection of Kamegawa et al in view of Europe '403 in the office action dated 2-5-03 has been withdrawn. There is no



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suggestion or motivation in the prior art of record to combine Kamegawa et al and Europe '403 such that "the height of the block gradually and continuously decreases from a top of the peripheral portion to the block end edge and from the top of the peripheral protuberant portion to a maximum depth portion in a central region of the block" (emphasis added).

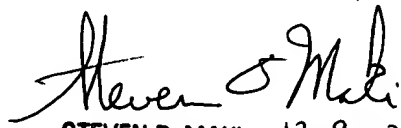
Claims 8-20 have not been indicated as allowable since they are subject to the above new ground(s) of rejection.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068 until Dec. 18, 2003 and (571) 272-1221 after Dec. 18, 2003. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki  
December 9, 2003

  
STEVEN D. MAKI 12-9-03  
PRIMARY EXAMINER  
~~GROUP 1300~~  
AU 1733